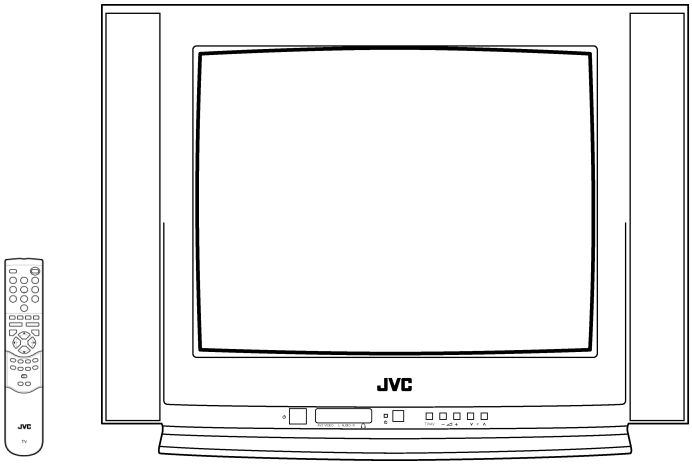
JVC

SERVICE MANUAL

COLOUR TELEVISION

AV-21BD5EKI / AV-21BD5EP / AV-21BD5EE
AV-21BD5EKIS / AV-21BD5EPS / AV-21BD5EES



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No.51742
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SPECIFICATIONS

Item	Content
TV RF SYSTEM	B/G, I, D/K & L/L'
COLOUR STANDARD	PAL / SECAM / NTSC (AV only)
POWER INPUT	AC 230V, 50Hz
POWER CONSUMPTION	49W / 3W (STBY)
TELETEXT SYSTEM	FLOF (Fastext) / TOP / WST (standard system)
SOUND OUTPUT / SPEAKER	7W / 8Ω (×2)
PICTURE TUBE SIZE	VISIBLE AREA 51cm (measured diagonally)
ANTENNA INPUT	75Ω Unbalanced
INPUT / OUTPUT	FRONT: RCA JACK (VIDEO / AUDIO) REAR : 21-PIN EURO CONNECTOR (SCART) × 2 (VIDEO / AUDIO / RGB / S. VHS) — COMMON INPUT
INTERMEDIATE FREQUENCIES	PIF : 38.9MHz (B/G, D/K, I, L) , 33.9MHz (L') SIF : 33.4MHz (PAL / SECAM – B/G) 32.9MHz (PAL / SECAM – I / I) 32.4MHz (PAL / SECAM – D/K, SECAM – L) 40.4MHz (SECAM – L')
	SOUND SUBCARRIER : 5.5MHz (PAL / SECAM – B/G) 6.0MHz (PAL / SECAM – I / I) 6.5MHz (PAL / SECAM – D/K, SECAM – L) 6.5MHz (SECAM – L')
	COLOUR SUBCARRIER : 4.43MHz (PAL) 4.250MHz, 4.406MHz (SECAM)
REMOTE CONTROL	RM-C71 [Batt, AAA (R03)] (EP, EPS, EE, EES) RM-C72 [Batt, AAA (R03)] (EKI, EKIS)
DIMENSIONS (W × H × D)	615mm × 480mm × 480mm
MASS	20.3kg

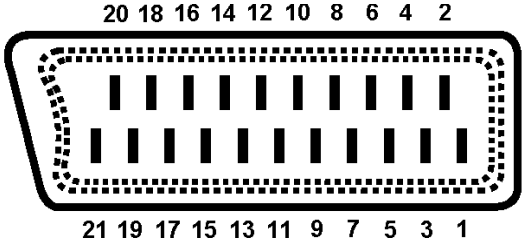
Design & specifications are subject to change without notice.

■21-pin Euro connector (SCART socket)

21Pin EURO-SCART 1:

Pin No.	Signal Designation	Matching Value
1	Audio Output Right	0.5V(rms), Imp<1kΩ (RF 54% MOD)
2	Audio Input Right	0.5V(rms), Imp>10kΩ
3	Audio Output Left	0.5V(rms), Imp<1kΩ (RF 54% MOD)
4	Audio Earth	
5	Blue Earth	
6	Audio Input Left	0.5V(rms), Imp>10kΩ
7	Blue Input	0.7V(p-p) ±0.1V, Imp75Ω
8	Slow Switching	TV : 0-2V, AV 16/9 : 4.5-7V, AV 4/3 : 9.5-12V, Imp>10kΩ
9	Green Earth	
10	NC	
11	Green Input	0.7V(p-p) ±0.1V, Imp 75Ω
12	NC	
13	Red Earth	
14	Blanking Earth	
15	Red Input	0.7V(p-p) ±0.1V, Imp 75Ω
16	Fast Switching	0-0.4V : Logic “0”, 1-3V : Logic “1”, Imp75Ω
17	Video Out Earth	
18	Video In Earth	
19	Video Output	1V(p-p) ±3dB, Imp75Ω
20	Video Input	1V(p-p) ±3dB, Imp75Ω
21	Common Earth	

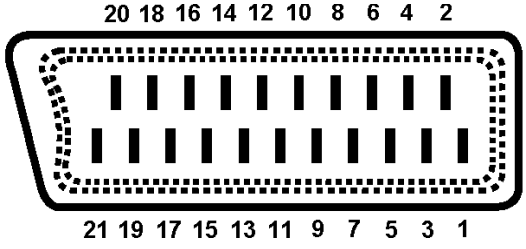
[Pin assignment]



21Pin EURO-SCART 2 :

Pin No.	Signal Designation	Matching Value
1	NC	
2	Audio Intput Right	0.5V(rms), Imp<10kΩ
3	NC	
4	Audio Earth	
5	Earth	
6	Audio Input Left	0.5V(rms), Imp>10kΩ
7	NC	
8	NC	
9	NC	
10	NC	
11	NC	
12	NC	
13	Earth	
14	Earth	
15	Chroma Input	±3dB for a luminance signal of 1V(p-p)
16	NC	
17	Earth	
18	Video In Earth	
19	NC	
20	Video Input, Y In.	1V(p-p) ±3dB, Imp75Ω
21	Common Earth	

[Pin assignment]



SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

4. **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
   Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
   If above note will not be kept, a fuse or any parts will be broken.

5. If any repair has been made to the chassis, it is recommended that the +B setting should be checked or adjusted (See +B ADJUSTMENT).

6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

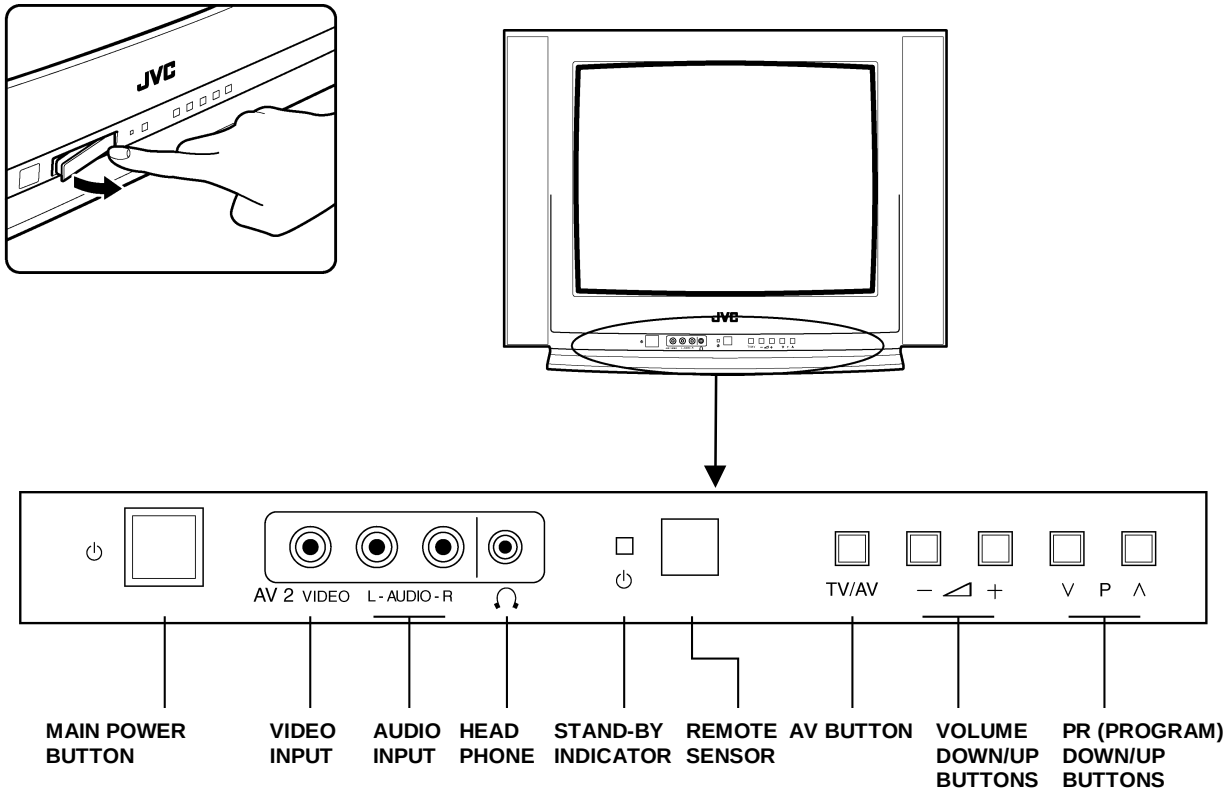
7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

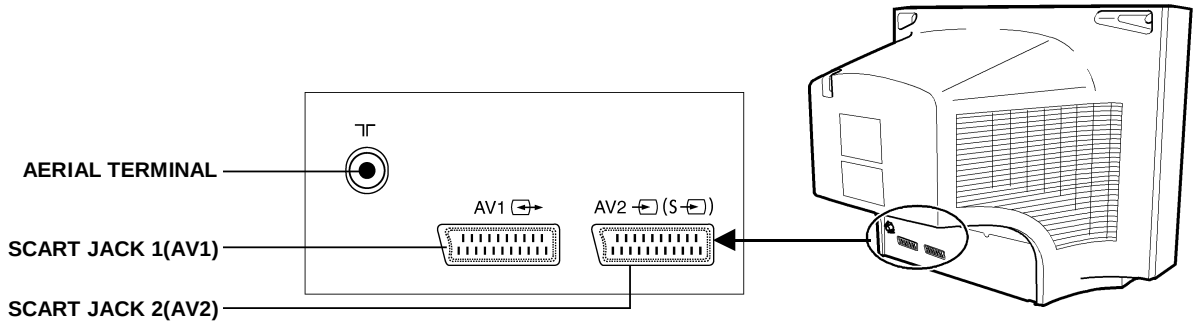
FUNCTIONS

LOCAL CONTROL

FRONT



BACK

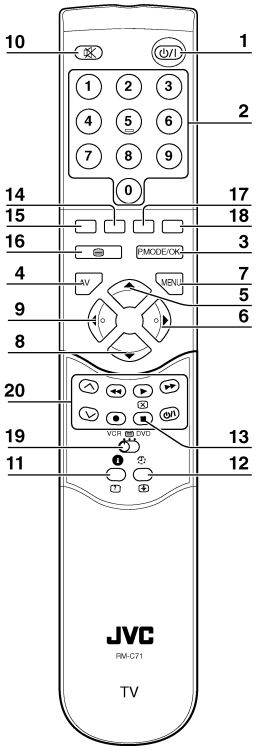


REMOTE CONTROL

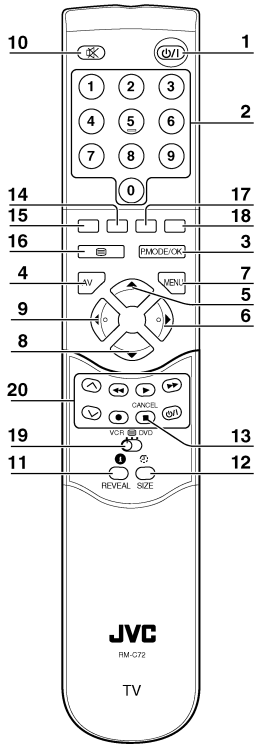
TV mode

1. POWER
2. NUMBER 0-9 / NUMBER
3. P.MODE / OK
4. AV
5. UP
6. RIGHT
7. MENU
8. DOWN
9. LEFT
10. MUTING
11. RECALL
12. SLEEP
13. Not used
14. MOVE
15. SKIP
16. TV / TEXT
17. DELETE
18. MODE
19. VCR / ▤ / DVD switch
20. VCR / DVD Control buttons

RM-C71

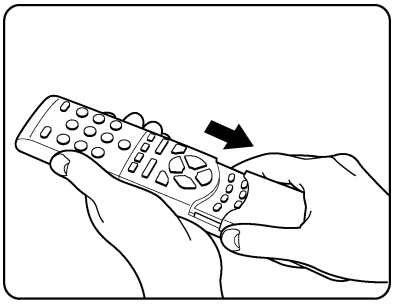


RM-C72



TELETEXT mode

1. POWER
2. NUMBER 0-9
3. INDEX
4. Not used
5. UP
6. SUBPAGE
7. MENU
8. DOWN
9. HOLD
10. MUTING
11. REVEAL
12. SIZE
13. CANCEL
14. GREEN
15. RED
16. TV / TEXT
17. YELLOW
18. CYAN
19. VCR ▤ / DVD switch
20. Not used



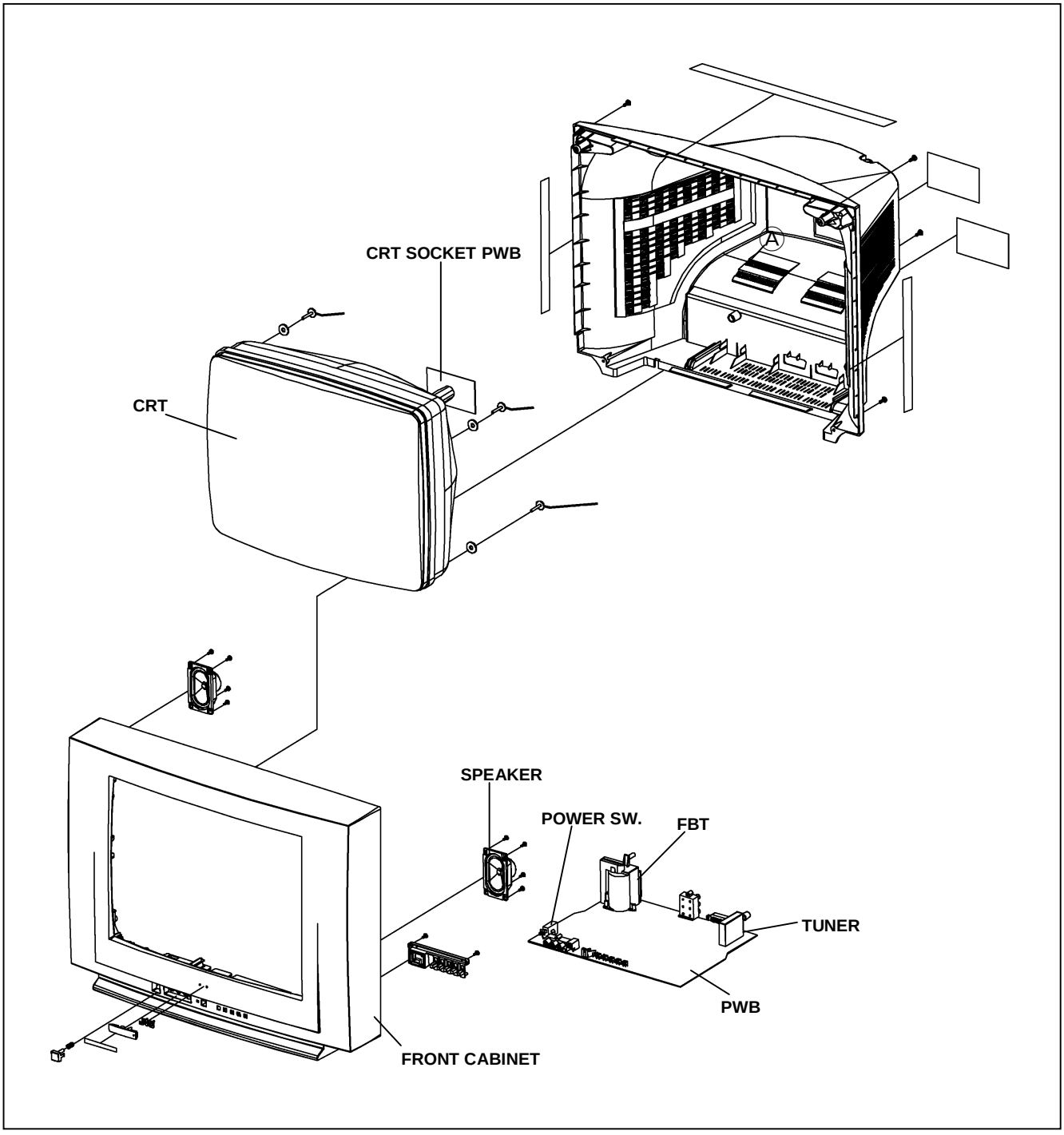
SPECIFIC SERVICE INSTRUCTIONS

DISASSEMBLY PROCEDURE

Note : Before starting work, disconnect the power plug from the wall outlet.

HOW TO REMOVE THE REAR COVER

1. Remove the 5 screws marked Ⓐ .
2. Remove the rear cover backward.



SERVICE ADJUSTMENTS

BEFORE ADJUSTMENT AND MAINTENANCE

1. Don't short any two soldering points or connect any component while TV set is power on.
2. Withdraw power plug before maintenance.
3. In order to ensure safety all components replaced should be identical. (For further details, refer to the component name and component No. in PARTS LIST.)
4. Must be warm up the set for 30 minutes or more and degauss CRT thoroughly with demagnetizer coil before adjustment.

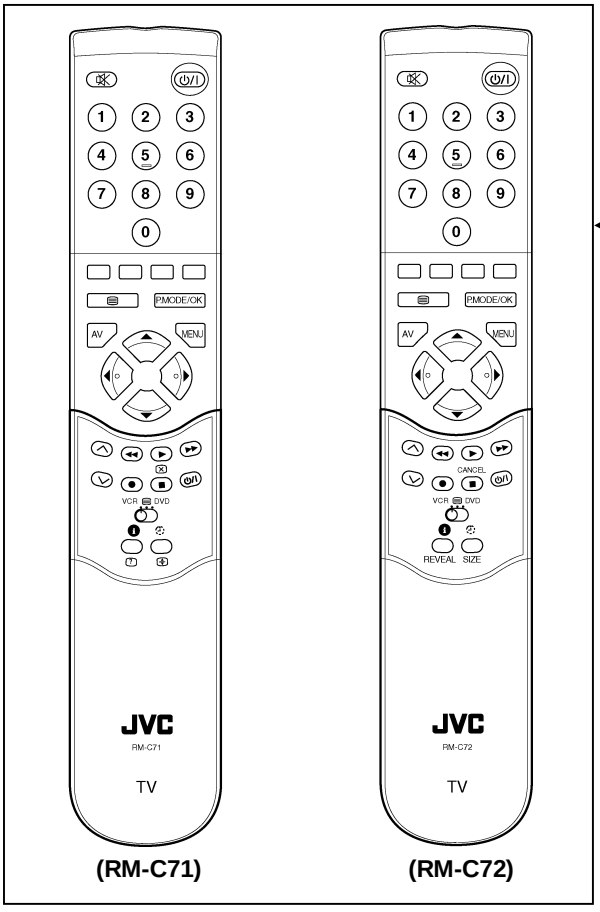
EQUIPMENT FOR ADJUSTMENT

1. Pattern Generator
2. Digital volt meter
3. Oscilloscope
4. Demagnetizer
5. **Service** remote controller (For repair service)
6. Remote controller (RM-C71 or RM-C72)

ADJUSTMENTS PROCEDURES

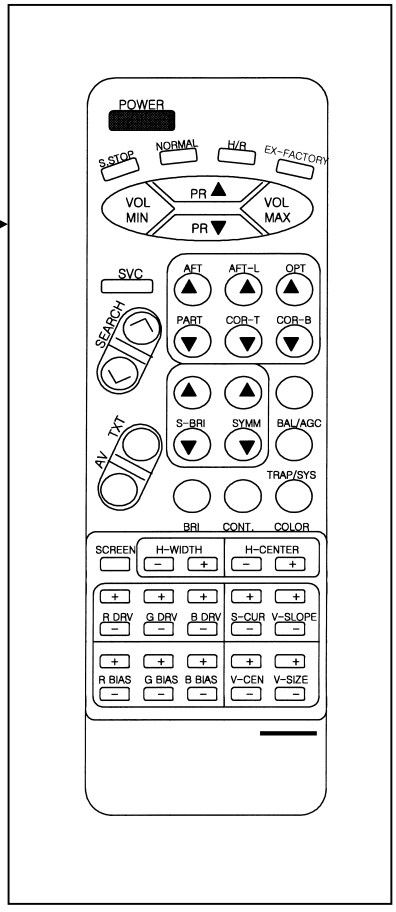
+B VOLTAGE CHECK

1. Receive a standard colour bar signal.
2. Connect digital volt meter between + of B1 Line circuit and GND.
3. Confirm that voltage is DC 123V ± 2.0V.



(RM-C71) (RM-C72)

Remote Controller



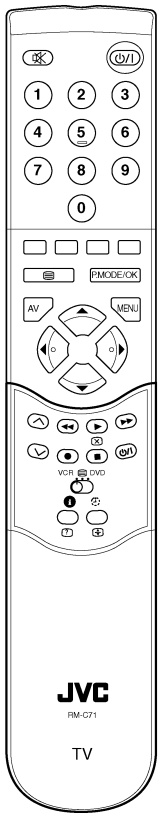
Service Remote Controller

BASIC OPERATION OF SERVICE MENU

REMOTE CONTROLLER (RM-C71, RM-C72)

How to ENTER and EXIT from service mode

1. Select the CH-91.
2. Press the MENU KEY of the remote control unit and select PICTURE from the MENU with the P.(▲)/ P.(▼) key of the remote control unit .
3. While pressing the P. MODE/OK KEY of the remote control unit, select "sharpness" from the MENU with the P.(▲)/ P.(▼) / ◀ -/ ▶ + key. Then, set the set value of "sharpness" to "0" with the ◀ -/▶ +KEY.
4. Press the MENU KEY of the remote control unit twice and return to the normal screen. To enter the SERVICE MODE, change the indication of RED, GREEN and MENU, in turn, with the key of the remote control unit.
5. When exiting from the SERVICE MODE, turn the power switch off.



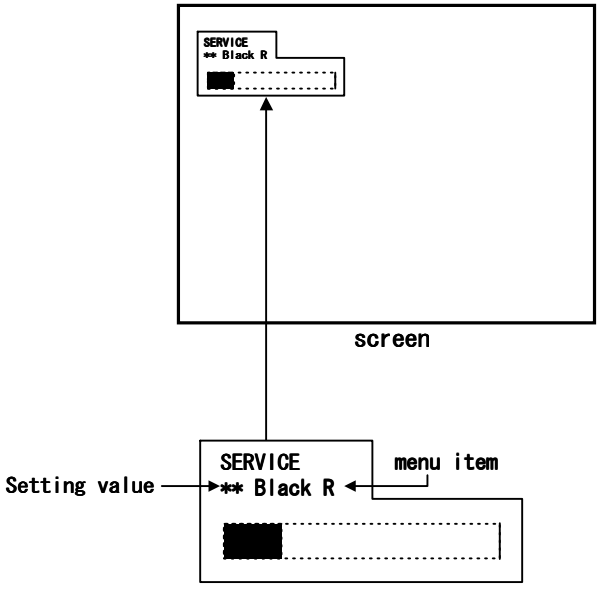
How to set SERVICE MODE

1. Select the setting item you want to change with the P.(▲)/ P.(▼) key on the remote control unit. (The item you selected will be indicated by YELLOW on the display.)
2. When changing the set values, use the ◀ -/▶ +KEY on the remote control unit.
3. When the setting has been completed, turn the power switch off. (The changed set values are stored in memory.)

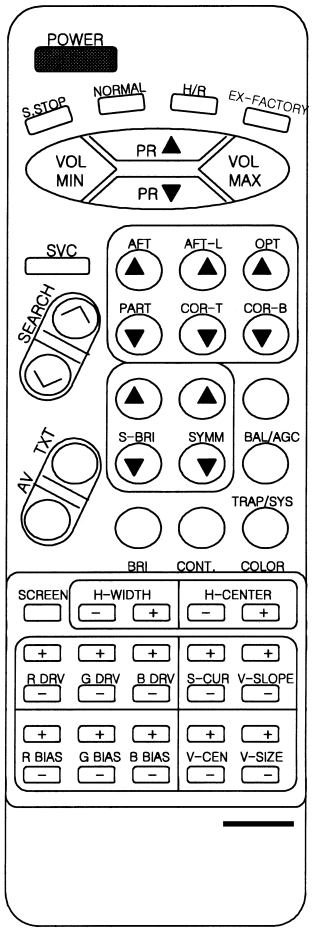
SERVICE MENU screen selection

Press the P.(▲)/ P.(▼) key ····· select menu item.
(The letters of the selected items are displayed in yellow)
Press the ◀ -/▶ +KEY ····· setting the value item.

- ·AGC
- ·Black R
- ·Black G
- ·WP Red
- ·WP Green
- ·WP Blue
- ·H Parall
- ·H Bow
- ·H Shift
- ·V Slope
- ·V Amp
- ·VS Cor
- ·V Shift
- ·H Width
- ·EW Parabo
- ·Up Corner
- ·Dw Corner
- ·EW Trapez
- ·Option



FUNCTION OF SERVICE REMOTE CONTROLLER



Service Remote Controller

POWER	: Power On/Off key
S STOP	: User R/C mode change (DW→JVC→AIWA)
NORMAL	: NORMAL Ⅰ →NORMAL Ⅱ →Favorite
H/R	: Fast heat-run mode in line production
EX-FACTORY	: Not use
VOL MIN	: Volume minimum key
VOL MAX	: Volume maximum key
PR+	: Program up key
PR-	: Program down key
SVC	: Service mode On/Off key
AFT	: AFT adjustment key
AFT-L	: SECAM L AFT adjustment key
OPT	: AGC adjustment key
PART	: Not use
COR-T	: Not use
COR-B	: Not use
SEARCH	: Search up/down key
AV	: AV mode/TV mode toggle key
TXT	: Teletext On/Off key
S-BRI	: Sub-brightness adjustment key
SYMM	: Not use
BAL / AGC	: LED EAST Yes/No toggle key
BRI	: Brightness Min/Max toggle key
CONT	: Contrast Min/Max toggle key
COLOR	: Color Min/Max toggle key
SCREEN	: Horizontal 1 line display key for screen adjustment
H-WIDTH	: H. width adjustment key
H-CENTER	: H. center adjustment key
R DRV	: R drive adjustment key for W/B high beam
G DRV	: G drive adjustment key for W/B high beam
B DRV	: B drive adjustment key for W/B high beam (Do not adjust : B is the reference)
R BIAS	: R bias adjustment key for W/B low beam
G BIAS	: G bias adjustment key for W/B low beam
B BIAS	: B bias adjustment key for W/B low beam (Do not adjust : B is the reference)
S-CUR	: Not use
V-SLOPE	: Not use
V-CEN	: Vertical center adjustment key
V-SIZE	: Vertical size adjustment key

ADJUSTMENTS

SELECT OPTION ITEM

Option	Tuner maker	Cut off / video Amp.
0	DAEWOO / SAMSUNG	140V / 92V
2	SIEL	140V / 92V

G2 ALIGNMENT

1 TV in AV mode without video signal ⇒ Black screen.

2 TV preset with WP Red, WP Green and WP Blue equal to 32.

3 TV preset with Black R, Black G equal to 8.

4 Set TV in NORMAL I mode.

5 Adjust screen volume (on FBT) such that the highest cathode cut-off voltage measured on CRT board, is Vcut off ±5V.

Screen size	Vcut-off
21″	125V

WHITE BALANCE

NOTE
- When the WHITE BALANCE adjustments are carried out, it is necessary to use the service remocon.
- Confirm G2 Alignment has been adjusted.

■ Low Light

1 Press the TV / AV button on the front of the TV unit and enter the VIDEO MODE.

2 Input a crosshatch pattern signal.

3 Press the SVC key to display the SVC screen as shown in Fig.1.

4 Press the SCREEN key to display the single horizontal line.

5 Check the color of the single horizontal line being displayed.

6 Press the SCREEN key to disappear the single horizontal line.

7 Adjust the bias values of R, G and B with their respective +/- keys so that the single horizontal line on the screen becomes “white”.

8 While pressing the SCREEN key, check the color of the single horizontal line on the screen.

9 Repeat the steps 5 ～ 8 above until the single horizontal line on the screen becomes “white”.

■ High Light

⑩ Press the SCREEN key to display the single horizontal line.

⑪ In the same manner as for “Low Light”, adjust R DRIVE and G DRIVE with their respective +/- keys.

⑫ When the adjustment has been completed, press the SVC button to exit from the ADJ’MENT MODE.

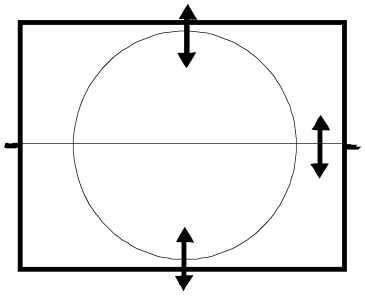
FOCUS

1 Input a crosshatch pattern signal

2 Adjust the FOCUS volume (on FBT) to have the best resolution on screen.

VERTICAL GEOMETRY

Adjust the V Amp, V Shift, VSC or and V slope to compensate for vertical distortion.

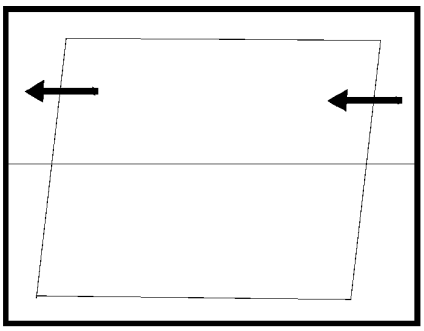


HORIZONTAL PICTURE CENTERING

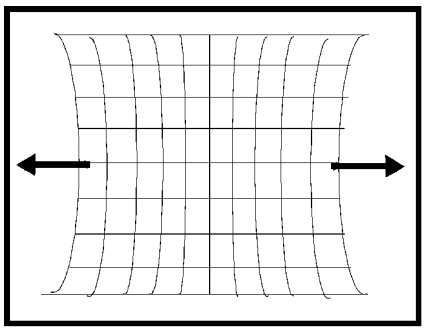
Adjust H Shift, to have the picture in the center of the screen.

EAST / WEST CORRECTION

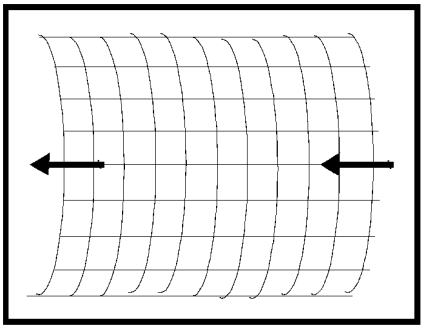
Adjust the H. Parall, H. Bow, H. Widdth, EW. Parabo, Up corner, Dw Corner, EW Trapez to compensate for geometrical distortion.



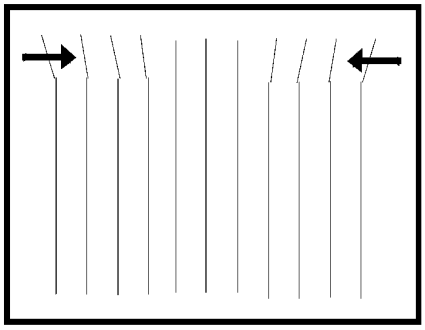
H. Parall



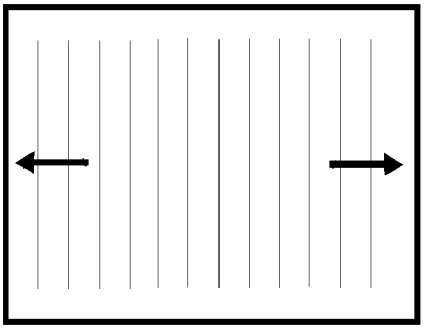
EW.Parabo



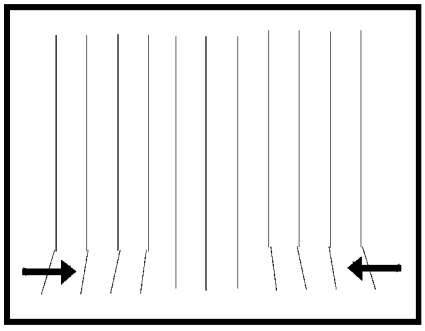
H. Bow



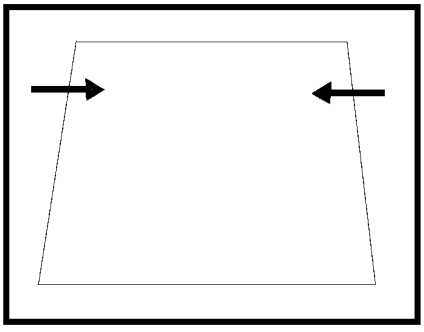
Up Corner



H.Width



Dw Corner



EW Trapez

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied .
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied .

ABBREVIATIONS OF RESISTORS, TRANSISTOR, CAPACITORS AND TOLERANCES

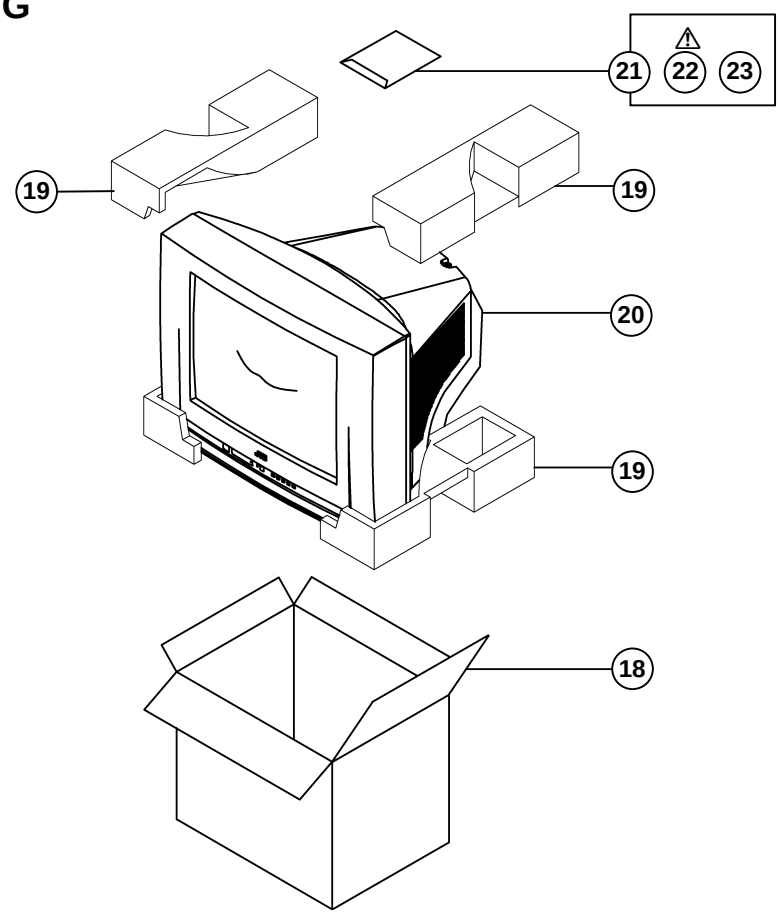
RESISTORS		CAPACITORS	
C R	Carbon Resistor	CERA C	Ceramic Capacitor
V R	Variable Resistor	ELECTRO C	Electrolytic Capacitor
		MYLAR C	Mylar Capacitor
TR	Transistor		

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% 0%

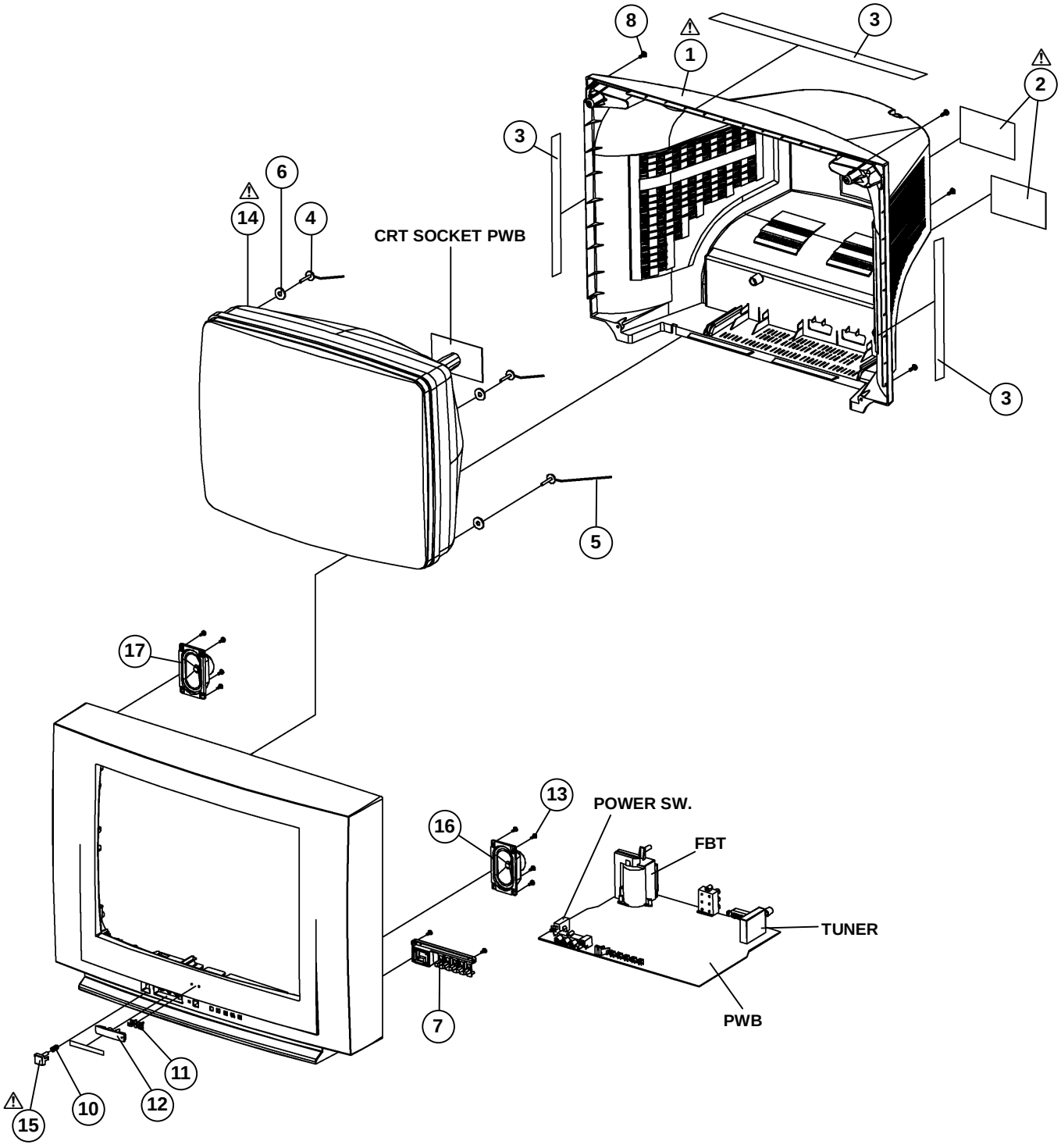
■PACKING & EXPLODED VIEW PARTS LIST

⚠	Ref.	Symbol No.	Part No.	Part Name	Description
⚠	1	M211	4852157801	COVER BACK	HIPS BK
⚠	2	M541	4855415800	SPEC PLATE	150ART P/E FILM (C/TV)
	3	M781	4857817612	CLOTH BLACK	FELT 250X20X0.7
	4	CRT1A	4856013300	SCREW CRT FIXING	30X80 BK
	5	CRT1C	4856013303	SCREW CRT FIXING	30X250 YL
	7	M191	4851941501	BUTTON CTRL	4947801+5542600
	8	M211A	7172401412	SCREW TAPPTITE	TT2 TRS 4X14 MFZN BK
	9	M481	4854858301	BUTTON POWER	ABS BK
	10	M481A	4856715600	SPRING	SWPA PIE 0.4
	11	M561	4855622500	MARK BRAND	AL DIA-CUT GOLD
	12	M751	4857538201	COVER JACK	HIPS BK
	13	SP01B	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN
	13	SP02A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN
⚠	14	V901	4859629361	CRT(ITC)	A51EFS83X191
⚠	15	M201	4852076001	MASK FRONT	HIPS BK
	16	SP01	4858310910	SPEAKER	7.5W 8 OHM 95BF03LC
	17	SP02	4858310910	SPEAKER	7.5W 8 OHM 95BF03LC
	18	M801	4858058500	BOX CARTON	DW-3
	19	M811	4858195500	PAD	EPS
	20	M821	4858211800	BAG P.E	L.D.P.E T0.03X1300X1000
	21	M822	4858213800	BAG INSTRUCTION	L.D.P.E T0.05X250X400
⚠	22	10000	48586054K1	MANUAL INSTRUCTION	DTM-2082CW
	23	ZZ100	48B00RMC71	TRANSMITTER REMOCON	RM-C71 (AAA)
⚠		ZZ131	58G0000147	COIL DEGAUSSING	DC-21SF

■PACKING



■EXPLODED VIEW



■ELECTRICAL PARTS LIST

⚠ Symbol No.	Part No.	Part Name	Description
C101	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C102	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
C103	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C104	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C106	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP
C108	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C110	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C120	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C121	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C305	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP
C313	CMXM2A104J	C MYLAR	100V 0.1MF J TP
C315	CEXF2C470C	C ELECTRO	160V RUS 47MF (13X25) TP
C320	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C350	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)
C351	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)
C390	CMXM2A473J	C MYLAR	100V 0.047MF J TP
C401	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
C404	CMYH3C752J	C MYLAR	1.6KV BUP 7500PF J
C408	CMYE2E364J	C MYLAR	250V PU 0.36MF J
C412	CEXF2C339V	C ELECTRO	160V RSS 3.3MF (8X16) TP
C414	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)
C415	CEXF2E479V	C ELECTRO	250V RSS 4.7MF (10X16)TP
C417	CMXL2E104K	C MYLAR	250V MEU 0.1MF K
C418	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C420	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)
C500	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP
C501	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C509	CXCH1H270J	C CERA	50V CH 27PF J (TAPPING)
C511	CMXB1H224J	C MYLAR	50V EU 0.22MF J (TP)
C512	CMXB1H224J	C MYLAR	50V EU 0.22MF J (TP)
C513	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C514	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
C515	CBZR1C222M	C CERA	16V Y5R 2200PF M (AXIAL)
C516	CBZR1C472M	C CERA	16V Y5R 4700PF M (AXIAL)
C517	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C518	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z
C519	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C520	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C521	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C522	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
C523	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z
C524	CMXB1H104J	C MYLAR	50V EU 0.1MF J (TP)
C525	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C526	CMXB1H104J	C MYLAR	50V EU 0.1MF J (TP)
C527	CMXB2A473J	C MYLAR	100V EU 0.047MF J (TP)
C528	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
C529	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z
C530	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
C531	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)
C532	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C533	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C534	CCZF1H223Z	C CERA	50V F 0.022MF Z
C535	CCZF1H223Z	C CERA	50V F 0.022MF Z
C536	CCZF1H223Z	C CERA	50V F 0.022MF Z
C537	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C540	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
C541	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
C542	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C543	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C550	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP

⚠	Symbol No.	Part No.	Part Name	Description
	C555	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP
	C560	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
	C561	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
	C564	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
	C565	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
	C577	CCZB1H561K	C CERA	50V B 560PF K
	C585	CCXB1H222K	C CERA	50V B 2200PF K (TAPPING)
	C587	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
	C588	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
	C589	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
	C590	CXCH1H270J	C CERA	50V CH 27PF J (TAPPING)
	C591	CXCH1H270J	C CERA	50V CH 27PF J (TAPPING)
	C592	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
	C593	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
	C601	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)
	C602	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
	C603	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)
	C604	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP
	C605	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP
	C608	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
	C610	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
	C611	CEXF1H339V	C ELECTRO	50V RSS 3.3MF (5X11) TP
	C612	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
	C613	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
	C614	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
	C615	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
	C616	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
	C617	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
	C620	CXCH1H509D	C CERA	50V CH 5PF D (TAPPING)
	C621	CXCH1H509D	C CERA	50V CH 5PF D (TAPPING)
	C622	CCXF1H223Z	C CERA	50V F 0.022MF Z (TAPPING)
	C625	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
	C626	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
	C629	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
	C630	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP
	C631	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
	C635	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
	C636	CEXF1C470C	C ELECTRO	16V RSS 47MF (5X11) TP
	C650	CXCH1H470J	C CERA	50V CH 47PF J (TAPPING)
	C660	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
	C661	CMXB1H224J	C MYLAR	50V EU 0.22MF J (TP)
	C662	CMXB1H224J	C MYLAR	50V EU 0.22MF J (TP)
	C665	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)
	C666	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
	C667	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)
	C668	CMXB1H224J	C MYLAR	50V EU 0.22MF J (TP)
	C669	CMXB1H224J	C MYLAR	50V EU 0.22MF J (TP)
	C690	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
	C691	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
	C698	CXCH1H470J	C CERA	50V CH 47PF J (TAPPING)
	C699	CXCH1H470J	C CERA	50V CH 47PF J (TAPPING)
	C770	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
	C771	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z
⚠	C801	CL1SC3474M	C LINE ACROSS	275V 0.47MF
	C803	CCXF3A472Z	C CERA	1KV F 4700PF Z (T)
	C804	CCXF3A472Z	C CERA	1KV F 4700PF Z (T)
	C805	CEYN2G101P	C ELECTRO	400V LHS 100MF (22X30)
	C806	CEXF1H330V	C ELECTRO	50V RSS 33MF (6.3X11) TP
	C807	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)
	C808	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
	C809	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
	C810	CBXB3D102K	C CERA SEMI	2KV BL(N) 1000PF K (T)
⚠	C812	CH1AFE472M	C CERA AC	4KV 4700PF M KX DE1610

⚠	Symbol No.	Part No.	Part Name	Description
	C813	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP
	C814	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP
	C820	CCYR3A471K	C CERA	1KV R 470PF K 125 DE0705
	C821	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
	C823	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP
	C824	CCYR3A471K	C CERA	1KV R 470PF K 125 DE0705
	C830	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z
	C831	CCYR3A471K	C CERA	1KV R 470PF K 125 DE0705
	C832	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP
	C835	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
	C840	CEXF1C222V	C ELECTRO	16V RSS 2200MF (13X25) TP
	C841	CEXF1C222V	C ELECTRO	16V RSS 2200MF (13X25) TP
	C844	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
	C850	CCZB1H821K	C CERA	50V B 820PF K AXIAL
	C861	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP
	C863	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
	C866	CCYR3A471K	C CERA	1KV R 470PF K 125 DE0705
	C888	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP
	C905	CEXF2E479V	C ELECTRO	250V RSS 4.7MF (10X16)TP
	C910	CCXB1H152K	C CERA	50V B 1500PF K (TAPPING)
	C965	CBXB3D102K	C CERA SEMI	2KV BL(N) 1000PF K (T)
	C968	CMXL2E104K	C MYLAR	250V MEU 0.1MF K
	CA01	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
	CA02	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
	CA03	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
	CA10	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
	D100	DSML1216W-	LED	SML1216W
	D101	DBAT85----	DIODE	BAT85
	D102	D1SS85TA--	DIODE	1SS85TA
	D313	DBAV21----	DIODE	BAV21
	D350	DUZ12BM---	DIODE ZENER	UZ-12BM (UNIZON)
	D360	DTZX22C---	DIODE ZENER	TZX22C (TAPPING)
	D361	DUZ33B----	DIODE ZENER	UZ-33B
	D403	DBY228----	DIODE	BY228 (TAPPING)
	D405	DBYW36---	DIODE	BYW36
	D407	DBYW36---	DIODE	BYW36
	D408	DBYW36---	DIODE	BYW36
	D450	DBYW36---	DIODE	BYW36
	D501	DUZ3R9B---	DIODE ZENER	UZ-3.9B
	D502	DUZ3R9B---	DIODE ZENER	UZ-3.9B
	D520	D1N4148---	DIODE	1N4148 (TAPPING)
	D521	D1N4148---	DIODE	1N4148 (TAPPING)
	D591	DUZ2R4B---	DIODE ZENER	UZ-2.4B
	D710	DUZ5R1B---	DIODE ZENER	UZ-5.1B UNIZON
⚠	D801	DBYT51J---	DIODE	BYT51J (TP)
⚠	D802	DBYT51J---	DIODE	BYT51J (TP)
⚠	D803	DBYT51J---	DIODE	BYT51J (TP)
⚠	D804	DBYT51J---	DIODE	BYT51J (TP)
	D805	DBYW36---	DIODE	BYW36
	D806	DBYW36---	DIODE	BYW36
	D808	DBYW36---	DIODE	BYW36
	D809	DBYW36---	DIODE	BYW36
	D810	DBYW36---	DIODE	BYW36
	D811	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM(TAPPING)
	D820	DBYW95C---	DIODE	BYW95C (TAPPING)
	D821	DBYW36---	DIODE	BYW36
	D822	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM 9.1V
	D824	D1N4148---	DIODE	1N4148 (TAPPING)
	D825	D1N4148---	DIODE	1N4148 (TAPPING)
	D830	DBYW36---	DIODE	BYW36
	D831	DBYW36---	DIODE	BYW36
	D840	D1N4148---	DIODE	1N4148 (TAPPING)

⚠	Symbol No.	Part No.	Part Name	Description
	D841	D1N4148---	DIODE	1N4148 (TAPPING)
	D860	DBYW76---	DIODE	BYW76
	D904	DBAV21----	DIODE	BAV21
	D905	DBAV21----	DIODE	BAV21
	D906	DBAV21----	DIODE	BAV21
	DA01	D1N4148---	DIODE	1N4148 (TAPPING)
	DA02	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM(TAPPING)
	DA03	DUZ5R1B---	DIODE ZENER	UZ-5.1B UNIZON
	DA04	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM(TAPPING)
	DA06	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM(TAPPING)
	DA08	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM(TAPPING)
	DA09	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM(TAPPING)
	DA10	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM(TAPPING)
	DA11	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM(TAPPING)
	DA13	CBZR1C222M	C CERA	Y5R 16V 2200PF M AXIAL
	DA14	CBZR1C222M	C CERA	Y5R 16V 2200PF M AXIAL
	DA15	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM(TAPPING)
	DA16	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
	DA20	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
	DA23	CBZR1C222M	C CERA	Y5R 16V 2200PF M AXIAL
	DA24	CBZR1C222M	C CERA	Y5R 16V 2200PF M AXIAL
	DA27	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM(TAPPING)
⚠	F801	5FSCB4022R	FUSE CERA	SEMKO F4AH 4A 250V MF51
	F801A	4857415001	CLIP FUSE	PFC5000-0702
	F801B	4857415001	CLIP FUSE	PFC5000-0702
	G900	4SG0D00103	SPARK GAP	S-23 900V-1.5KV
	HP1	4859102130	JACK EARPHONE	YSC-1537
	I301	PTC2SW4421	HEAT SINK ASS`Y	1TDA8357J- + 7174301011
	I301	1TDA8357J-	IC VERTICAL	TDA8357J
	I301A	4857024421	HEAT SINK	AL EX
	I301B	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN
	I501	1DW3673AE3	IC MICOM	DW9367/N1/3-AE3
	I601	1MSP3415D-	IC AUDIO	MSP3415D
	I602	PTD2SW4421	HEAT SINK ASS`Y	1TDA8944J- + 7174301011
	I602	1TDA8944J-	IC VERTICAL	TDA8944J
	I602A	4857024421	HEAT SINK	AL EX
	I602B	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN
	I702	1AT24C08PC	IC	AT24C08-10PC
	I703	1TSOP1238W	IC PREAMP	TSOP1238WI1
	I801	PTK2SW4610	HEAT SINK ASS`Y	1STRF6653- + 7174300811
	I801	1STRF6653-	IC SMPS	STR-F6653
	I801A	4857024610	HEAT SINK	AL EX
	I801B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN
⚠	I804	1LTV817C--	IC PHOTO COUPLER	LTV-817C
	I805	1UPC574J--	IC	UPC574J
	I806	1SE110N---	IC REGULATOR	SE110N
	I810	TX0202DA--	THYRISTOR	X0202DA1BA2
	I820	1K1A7805P1	IC REGULATOR	KIA7805API
	I822	1K1A7808P1	IC REGULATOR	KIA7808API
	I823	1LE33CZ---	IC REGULATOR	LE33CZ
	I901	PTC3SW1100	HEAT SINK ASS`Y	1TDA6107Q- + 7174301011
	I901	1TDA6107Q-	IC VIDEO	TDA6107Q
	I901A	4857031100	HEAT SINK	A1050P-H24 T2.0
	I901B	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN
	JPA1	4859200401	SOCKET RGB	YRS21-R1
	JPA2	4859200401	SOCKET RGB	YRS21-R1
	JPA3	4859108450	JACK PIN BOARD	YSC03P-4120-14A
	L101	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)
⚠	L401	58H0000020	COIL H-LINEARITY	L-76(76.5UH)
	L500	5CPZ120K02	COIL PEAKING	12UH K (AXIAL 3.5MM)
	L501	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)
	L502	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)

⚠	Symbol No.	Part No.	Part Name	Description
	L510	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)
	L511	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)
	L512	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)
	L601	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)
	L602	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)
	L603	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)
	L650	5MC0000100	COIL BEAD	HC-3550
	L801	5MC0000100	COIL BEAD	HC-3550
	L802	58C9430599	COIL CHOKE	AZ-9004Y(94MH)
	L803	5MC0000100	COIL BEAD	HC-3550
⚠	LF801	5PLF24A1--	FILTER LINE	LF-24A1
	M351	4853533600	HOLDER LED	P.P BK
	P401	4850705N14	CONNECTOR	BIC-05T-25T+ULW=500
⚠	PW000	4859906111	CORD POWER	M5206+H03VVH2-F=2250
	PWC1	PTWCSW7410	CORD POWER ASS`Y	4859906111
	Q101	TKTC3198Y-	TR	KTC3198Y
	Q103	TKTC3202Y-	TR	KTC3202Y (TP)
⚠	Q401	T2SD2499--	TR	2SD2499
	Q402	T2SD1207T-	TR	2SD1207-T (TAPPING)
	Q501	TKTA1266Y-	TR	KTA1266Y (TP)
	Q502	TKTC3198Y-	TR	KTC3198Y
	Q503	TKTC3198Y-	TR	KTC3198Y
	Q504	TKTC3198Y-	TR	KTC3198Y
	Q505	TKTC3198Y-	TR	KTC3198Y
	Q507	TKTA1266Y-	TR	KTA1266Y (TP)
	Q508	TKTC3198Y-	TR	KTC3198Y
	Q509	TKTA1266Y-	TR	KTA1266Y (TP)
	Q510	TKTA1266Y-	TR	KTA1266Y (TP)
	Q511	TKTA1266Y-	TR	KTA1266Y (TP)
	Q700	TKTC3198Y-	TR	KTC3198Y
	Q807	TKTC3198Y-	TR	KTC3198Y
	Q808	TKTC3198Y-	TR	KTC3198Y
	Q809	TKTC3198Y-	TR	KTC3198Y
	Q810	TKTC3198Y-	TR	KTC3198Y
	Q811	TKTC3198Y-	TR	KTC3198Y
	R101	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
	R102	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
	R103	RD-AZ123J-	R CARBON FILM	1/6 12K OHM J
	R104	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J
	R105	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J
	R106	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	R107	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	R113	RD-AZ562J-	R CARBON FILM	1/6 5.6K OHM J
	R114	RD-AZ562J-	R CARBON FILM	1/6 5.6K OHM J
	R115	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J
	R116	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J
	R117	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J
	R120	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	R302	RD-2Z159J-	R CARBON FILM	1/2 1.5 OHM J
	R305	RS02Z331JS	R M-OXIDE FILM	2W 330 OHM J SMALL
	R310	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
	R311	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
	R340	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J
	R350	RN-4Z2001F	R METAL FILM	1/4 2.0K OHM F
	R351	RN-4Z2001F	R METAL FILM	1/4 2.0K OHM F
	R355	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J
	R356	RD-4Z562J-	R CARBON FILM	1/4 5.6K OHM J
	R360	RD-4Z564J-	R CARBON FILM	1/4 560K OHM J
	R380	5CPZ109M04	COIL PEAKING	1UH 10.5MM M (LAL04TB)
	R390	RD-4Z479J-	R CARBON FILM	1/4 4.7 OHM J
	R401	RD-4Z272J-	R CARBON FILM	1/4 2.7K OHM J
	R404	RD-4Z399J-	R CARBON FILM	1/4 3.9 OHM J

⚠ Symbol No.	Part No.	Part Name	Description
R415	RS02Z561JS	R M-OXIDE FILM	2W 560 OHM J SMALL
R420	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R450	RS02Z103JS	R M-OXIDE FILM	2W 10K OHM J SMALL
R501	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R502	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R503	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J
R504	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R505	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R506	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J
R507	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R508	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J
R509	RD-AZ681J-	R CARBON FILM	1/6 680 OHM J
R512	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R513	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R514	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R515	RD-AZ153J-	R CARBON FILM	1/6 15K OHM J
R516	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J
R517	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R518	RD-AZ273J-	R CARBON FILM	1/6 27K OHM J
R520	RD-AZ183J-	R CARBON FILM	1/6 18K OHM J
R521	RD-AZ391J-	R CARBON FILM	1/6 390 OHM J
R522	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R523	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J
R524	RD-AZ561J-	R CARBON FILM	1/6 560 OHM J
R525	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J
R526	RD-4Z479J-	R CARBON FILM	1/4 4.7 OHM J
R527	RD-AZ431J-	R CARBON FILM	1/6 430 OHM J
R528	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R530	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J
R531	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R533	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R534	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R537	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R538	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R539	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R540	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R541	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R542	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R543	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R544	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R545	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J
R546	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R547	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R548	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R549	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J
R550	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R551	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R555	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R556	RD-AZ622J-	R CARBON FILM	1/6 6.2K OHM J
R567	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R570	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R580	RD-AZ561J-	R CARBON FILM	1/6 560 OHM J
R585	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J
R586	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R587	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R588	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R589	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R591	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R592	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R593	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R594	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R595	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R597	RN-4Z1502F	R METAL FILM	1/4 15K OHM F

⚠	Symbol No.	Part No.	Part Name	Description
	R598	RN-4Z1502F	R METAL FILM	1/4 15K OHM F
	R605	RD-AZ751J-	R CARBON FILM	1/6 750 OHM J
	R606	RD-AZ751J-	R CARBON FILM	1/6 750 OHM J
	R608	RD-2Z151J-	R CARBON FILM	1/2 150 OHM J
	R609	RD-2Z151J-	R CARBON FILM	1/2 150 OHM J
	R610	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
	R614	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
	R615	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
	R620	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
	R621	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	R622	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	R650	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J
	R660	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J
	R661	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J
	R662	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J
	R700	RD-2Z332J-	R CARBON FILM	1/2 3.3K OHM J
	R710	RD-AZ431J-	R CARBON FILM	1/6 430 OHM J
	R711	RD-AZ301J-	R CARBON FILM	1/6 300 OHM J
	R713	RD-AZ681J-	R CARBON FILM	1/6 680 OHM J
	R714	RD-AZ82J-	R CARBON FILM	1/6 82 OHM J
	R720	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J
	R721	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J
	R722	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
	R723	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J
	R724	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J
⚠	R801	DPC7ROM290	POSISTOR	96709
	R802	RS02Y753JS	R M-OXIDE FILM	2W 75K OHM J SMALL
	R803	RS02Z473JS	R M-OXIDE FILM	2W 47K OHM J SMALL
	R804	RF02Z338K-	R FUSIBLE	2W 0.33 OHM K (TAPPING)
	R805	RD-2Z100J-	R CARBON FILM	1/2 10 OHM J
	R806	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J
	R807	RD-2Z332J-	R CARBON FILM	1/2 3.3K OHM J
	R808	RS02Z821JS	R M-OXIDE FILM	2W 820 OHM J SMALL
	R810	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J
⚠	R811	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K
	R817	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
	R819	RX10T339J-	R CEMENT	10W 3.3 OHM J TRIPOD
	R820	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
	R821	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J
	R829	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J
	R830	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J
	R840	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J
	R841	RD-2Z479J-	R CARBON FILM	1/2 4.7 OHM J
	R850	RD-2Z479J-	R CARBON FILM	1/2 4.7 OHM J
	R870	RD-2Z222J-	R CARBON FILM	1/2 2.2K OHM J
	R888	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
	R910	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	R911	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	R912	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	R913	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K
	R914	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K
	R915	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K
	R920	RF01Y478K-	R FUSIBLE	1W 0.47 OHM K
	R921	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
	R922	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
	R923	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
	RA01	RD-AZ680J-	R CARBON FILM	1/6 68 OHM J
	RA02	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	RA03	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	RA04	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	RA05	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
	RA06	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
	RA08	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J

⚠	Symbol No.	Part No.	Part Name	Description
	RA09	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
	RA10	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
	RA11	RD-AZ680J-	R CARBON FILM	1/6 68 OHM J
	RA12	RD-AZ680J-	R CARBON FILM	1/6 68 OHM J
	RA16	RD-AZ680J-	R CARBON FILM	1/6 68 OHM J
	RA19	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
	RA20	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
	RA21	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
	RA40	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
	RA41	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
	RA44	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J
⚠	SCT1	4859303530	SOCKET CRT	PCS629-03C
	SF1	5PK3953M--	FILTER SAW	K3953M
	SF2	5PK9650M--	FILTER SAW	K9650M
	SW700	5S50101090	SW TACT	SKHV17910A
	SW701	5S50101090	SW TACT	SKHV17910A
	SW702	5S50101090	SW TACT	SKHV17910A
	SW703	5S50101090	SW TACT	SKHV17910A
	SW704	5S50101090	SW TACT	SKHV17910A
⚠	SW801	5S40101143	SW POWER PUSH	PS3-22SP (P.C.B)
	T401	50D10A2---	TRANS DRIVE	TD-10A2
⚠	T402	50H0000204	FBT	1142.5106
⚠	T801	50M3934A2-	TRANS SMPS	2084.0046
	U100	4859719930	TUNER VARACTOR	DT5-BF18D
	X502	5XE12R000E	CRYSTAL QUARTZ	HC-49/U 12.00000MHZ 30PPM
	X601	5XE18R432E	CRYSTAL QUARTZ	HC-49/U 18.43200MHZ 30PPM
	Z501	5PXPS5R5MB	FILTER CERA	TPS5.5MB-TF21 (TP)
	Z601	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
	Z602	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
	Z603	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
	Z604	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
	Z605	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
	Z606	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
	Z607	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
	Z608	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
	Z609	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
	Z610	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF

M E M O

MEMO

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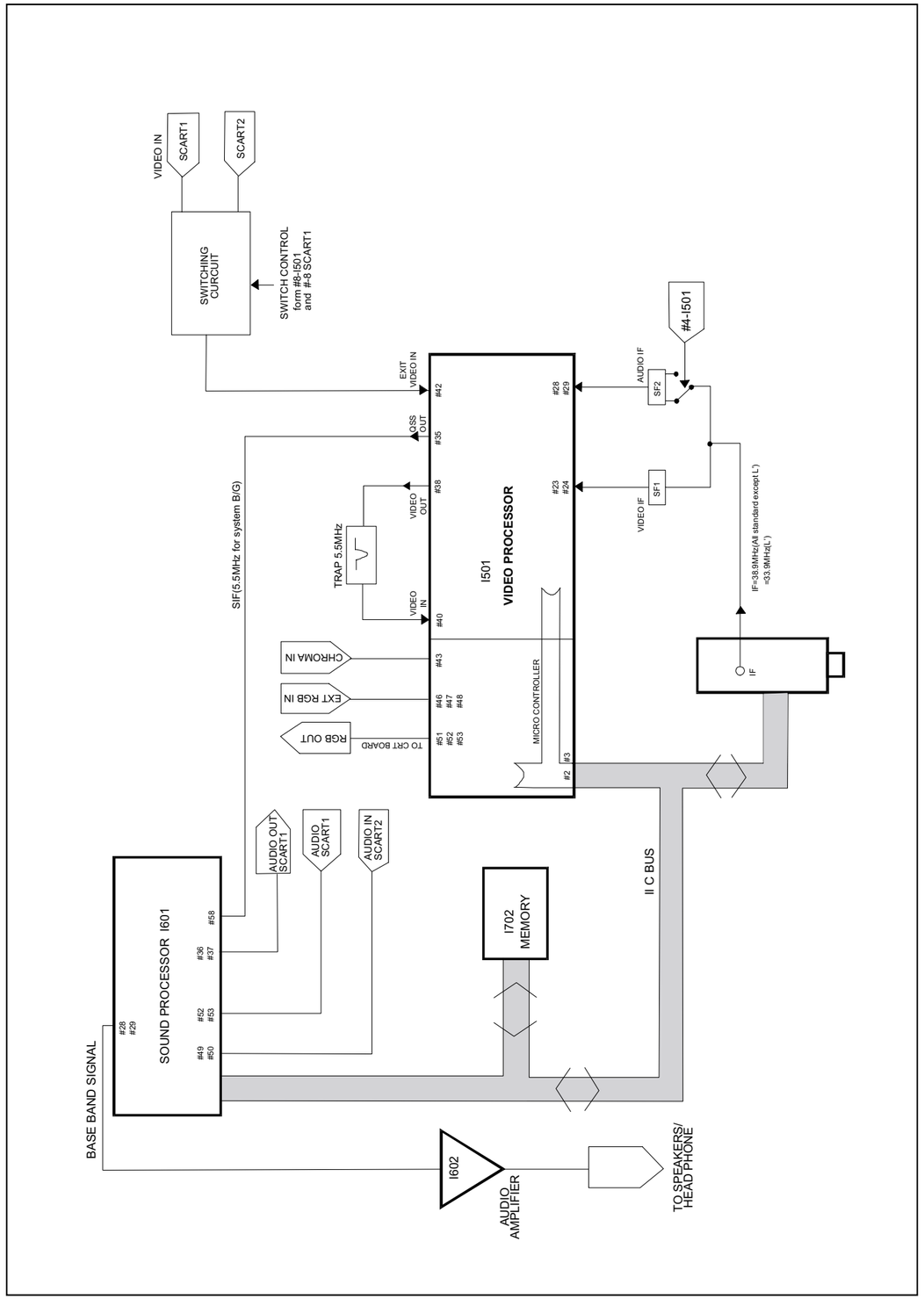
HOME AV NETWORK BUSINESS UNIT 1106 Heta, Iwai-city, Ibaraki-prefecture, 306-0698, Japan

Printed in Japan
VP 0007
DP6052

BLOCK DIAGRAM



AV-21BD5EKI AV-21BD5EP AV-21BD5EE
AV-21BD5EKIS AV-21BD5EPS AV-21BD5EES

AV-21BD5EKI / AV-21BD5EP / AV-21BD5EE
AV-21BD5EKIS / AV-21BD5EPS / AV-21BD5EES

STANDARD CIRCUIT DIAGRAM

■ NOTE :

1. RESISTANCE IS SHOWN IN OHM. K=1000, M=1000000
2. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES ARE EXPRESSED IN μF
3. VOLTAGES READ WITH "VTVM" FROM POINT INDICATED TO CHASSIS GROUND USING A COLOR BAR SIGNAL WITH ALL CONTROLS AT NORMAL LINE 230V AC VOLTAGE READINGS SHOWN ARE NORMAL VALUES AND MAY VARY +20% EXCEPT H.V
4. THIS CIRCUIT DIAGRAM IS A STANDARD ONE CIRCUIT PRINTED MAY BE SUBJECT TO CHANGE FOR PRODUCT IMPROVEMENT WITHOUT PRIOR NOTICE.

■ WARNING :

BEFORE SERVICING THE CHASSIS, READ "X-RAY RADIATION", "SAFETY PRECAUTION", AND "PRODUCT SAFETY NOTICE" IN SERVICE MANUAL.

■ PRODUCT SAFETY NOTE :

COMPONENTS MARKED WITH ⚠ ARE IMPORTANT FOR MAINTAINING.
THE SAFETY OF THE SET AND SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL OR SPECIFIED ONE IN THE PARTS LIST.
DON'T DEGRADE THE SAFETY THROUGH IMPROPER SERVICING.

■ CAUTION TO SERVICE TECHNICIANS :

BEFORE RETURNING THE RECEIVER TO CUSTOMER, LEAKAGE CURRENT OR RESISTANCE MEASUREMENTS SHOULD BE PERFORMED TO DETERMINE THAT EXPOSED PARTS ARE PROPERLY INSULATED FROM THE SUPPLY CIRCUIT.

RESISTOR

CARBON FILM	
R M-OXIDE	(M)
CARBON COMP	(CC)
FUSIBLE	(F)
CEMENT	(C)

CAPACITOR

ELECTRO	
CERAMIC	
CERAMIC CH	(CH)
ELECTRO NONPOLAR	(NP)
MYLAR	(M)

COIL

PEAKING	
CHOKE	(C)
BEAD	(B)

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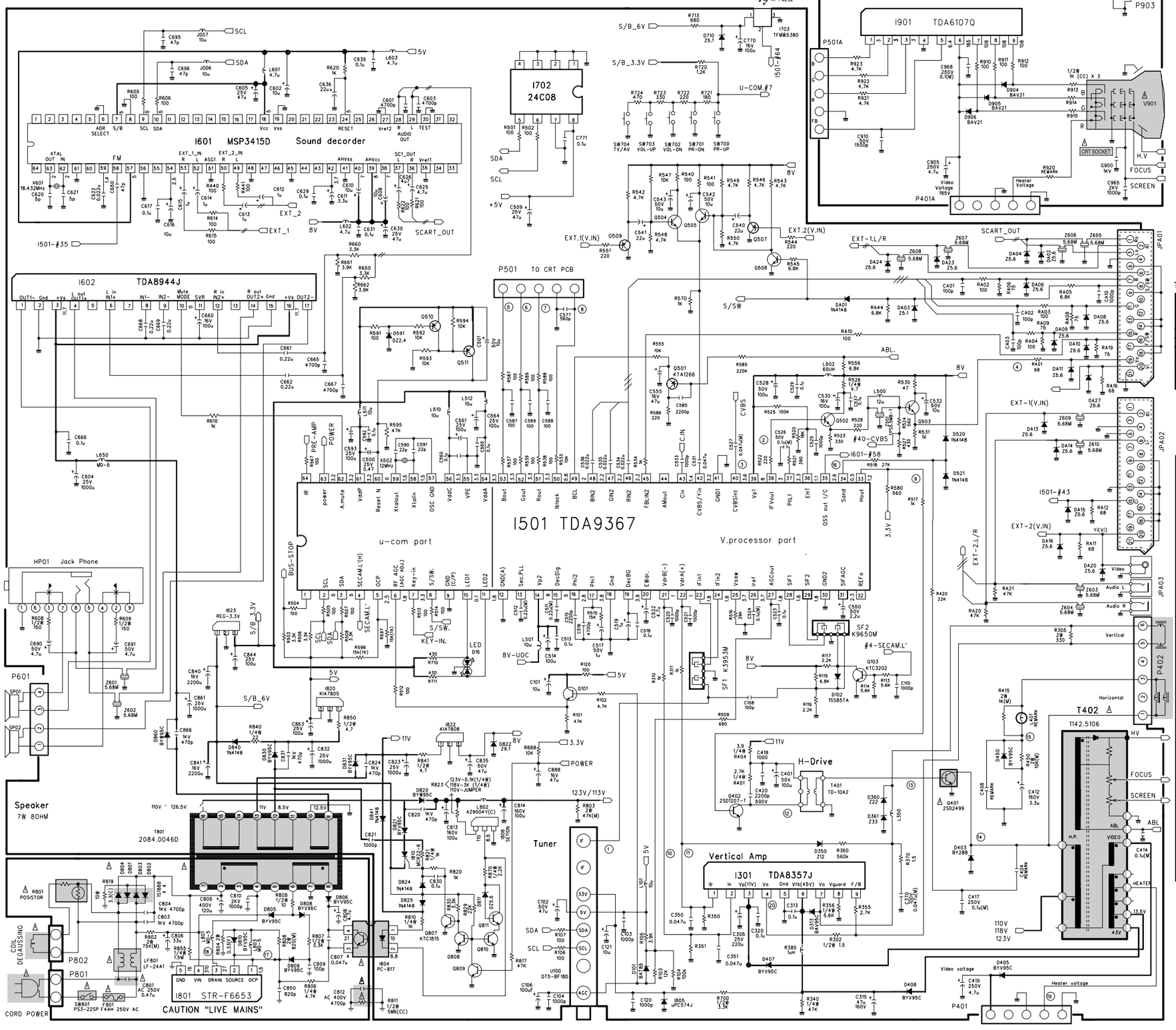
AV-21BD5EKI AV-21BD5EP AV-21BD5EE
AV-21BD5EKIS AV-21BD5EPS AV-21BD5EES

CIRCUIT DIAGRAM

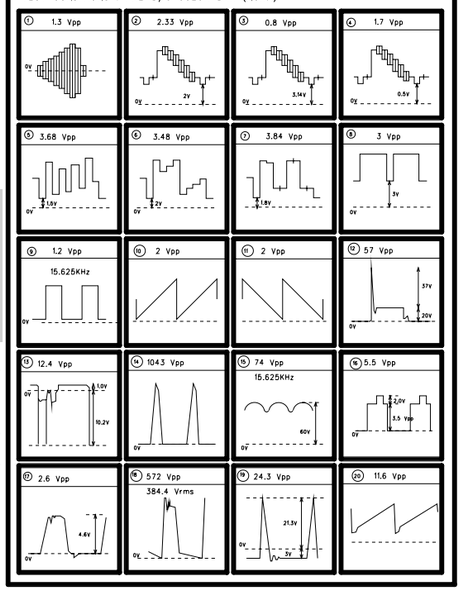


THE DIFFERENT PARTS FOR CRT

LOC.	21 INCH LG	21 INCH PHILIPS	21 INCH T/P
V901	A51OAE320X97	A51EAL155X01	A51EVB13X09
SC11	PC5629-03C	⟵	⟵
C404	1.6KV 8200pF	1.6KV 8200pF	1.6KV 7500pF
C408	200V 0.27 (M)	200V 0.36 (M)	200V 0.27 (M)
L401	L76	L102	TRL341G
R350	2K	2K(1%)	1.6K (1%)
R351	2K	2K(1%)	1.5K (1%)
R556	6.8K	⟵	⟵
R823	6.2K	3K	5.1K
R920	1W 1 JA (F)	1W 2 JA (F)	1W 1 JA (F)

* WAVEFORMS

TEST CONDITIONS : PAL-B/G COLOR BAR (NOR.1)



AV-21BD5EKI AV-21BD5EP AV-21BD5EE
AV-21BD5EKIS AV-21BD5EPS AV-21BD5EES

PATTERN DIAGRAMS

FRONT

TOP

CRT SOCKET PWB PATTERN